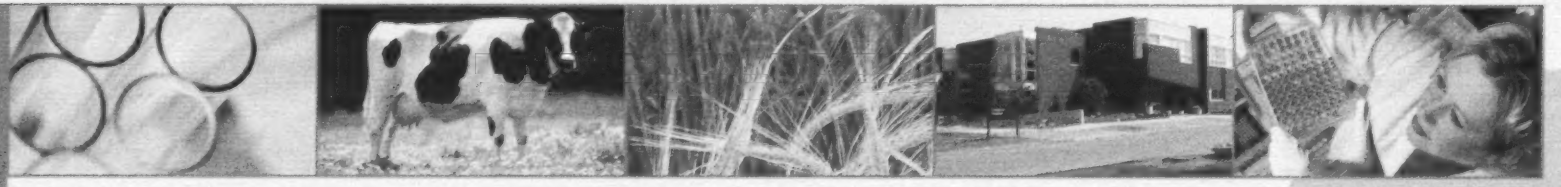
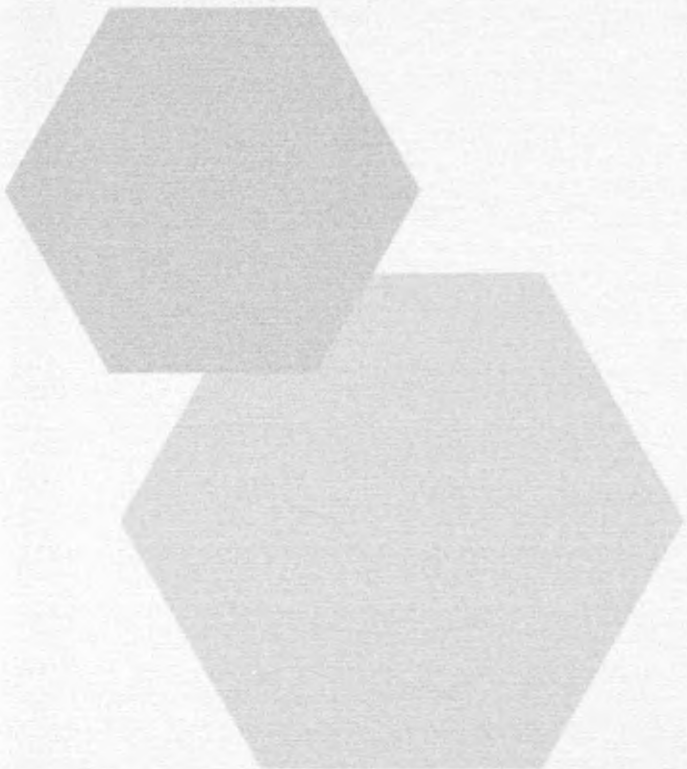
Agricultural Research Institute of Ontario (ARIO)



Annual Report 2012-2013



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Ministry Vision and Role of the ARIO

Ministry Vision

"Successful and sustainable agri-food and agri-product businesses."

Ministry Goals

- **Make Ontario a better place to do business**
- **Increase competitiveness through innovation**
- **Grow our markets here and abroad**
- **Support a strong rural Ontario that strengthens the province**

The Ontario Ministry of Agriculture and Food and Ministry of Rural Affairs (OMAF and MRA) invest significantly in agri-food research, education, technology transfer and analytical and diagnostic services to achieve their vision. A strategic and coordinated priority setting system, combined with modern world-class research infrastructure/facilities are keys to delivering research results that help drive innovation. The Agricultural Research Institute of Ontario continues to be an important component of the agri-food research and innovation system in the province.

Role of the Agricultural Research Institute of Ontario (ARIO)

The Agricultural Research Institute of Ontario (ARIO) fills a unique role in providing advice on strategic directions for research priorities/activities that contribute to prosperous, competitive and sustainable agricultural, food and rural sectors in Ontario. In addition, ARIO owns the provincial government's agriculture & food research and education infrastructure (currently 14 research stations and three regional campuses), and has the responsibility for operating and managing these assets in support of Ontario's agriculture and food sector. The Institute was created in 1962 under the *Agricultural Research Institute of Ontario Act R.S.O. 1990, C.A. 13* as amended and reports to the Minister of Agriculture and Food. ARIO's mandate, as defined by the Act, is to select and recommend areas of research for the betterment of agriculture, veterinary medicine and household sciences and to increase production efficiency and marketing of agricultural products by stimulating interest in research.

ARIO Mission Statement:
ARIO, is an Operational Services Agency reporting to the Minister of Agriculture and Food, and as appointed representatives of the agri-food sector, is dedicated to the strategic use of science and innovation to enhance the sustainability and profitability of Ontario's agri-food and rural sectors.

ARIO comprises up to 15 members appointed by the Minister of Agriculture and Food.

2012-13 ARIO Members

	Appt. Date	Exp. Date
Mr. Stewart Cressman (Chair)	Aug. 31, 2005	Aug. 31, 2015
Dr. Larry Milligan (Vice Chair)	July 13, 2007	July 13, 2013
Dr. Rebecca Baker	Oct. 26, 2009	Nov. 19, 2015
Dr. Om P. Dangi	Dec. 1, 2008	Dec. 1, 2013
Dr. Moni Eino	July 17, 2007	Dec. 23, 2013
Mr. Greg Hannam	Dec. 14, 2004	May 30, 2014
Mr. Paul Henderson	Dec. 23, 2008	Dec. 23, 2013
Ms. Elizabeth Johnston	Sept. 22, 2009	Sep. 22, 2015
Dr. Gord Surgeoner	June 2, 2005	Nov. 14, 2013
Mr. Richard Seguin (ex officio)		

Director of Research, ARIO:
Karen Chan

Secretariat support to ARIO is provided by the Research and Innovation Branch staff (OMAF and MRA):

Mike Toombs, Director
Rob Cunnington, CPA, CA, Comptroller
Debbie Ramsay, Manager – Research Program Coordination
Jeff Schieck, Manager – Finance, Infrastructure and Administration
Helene Svetik – Lead, ARIO Innovation Strategy
Oswald Zachariah, Manager – Knowledge Transfer and Translation

Letter from the Chair

Guelph, Ontario
June 27, 2013

The Honourable Kathleen Wynne
Minister of Agriculture and Food
Legislative Buildings
Toronto, Ontario M7A 1A3

Dear Minister Wynne,

I am pleased to submit the 49th annual report of the Agricultural Research Institute of Ontario (ARIO) for the fiscal year April 1, 2012 to March 31, 2013. Over the past year ARIO has achieved several significant milestones that are detailed in this annual report. Notable highlights include:

- Continued engagement with external stakeholders in fulfilling our mandate of promoting the agri-food sector and building strategic partnerships;
- Continued progress on implementing an innovation strategy by further developing concepts for new centres proposed for priority areas in bioeconomy, field crops, and food and health;
- Facilitating the continuing redevelopment of the Vineland research station by supporting Vineland Research and Innovation Centre's plans to construct a state-of-the-art commercial scale greenhouse research facility, scheduled to begin construction in the fall of 2013; and
- Facilitating the formation of the Livestock Research and Innovation Corporation (LRIC) and the development of a joint multi-livestock stakeholder agreement empowering LRIC to be the voice of the major livestock sectors in Ontario for research priority setting and governance of research program development and implementation at Elora;
- Facilitating and finalizing funding and detailed planning for construction of the new dairy research facility at Elora, expected to begin in the fall of 2013.

It has been a year of transformative progress for ARIO and the agri-food and agri-products sector across Ontario. ARIO has significantly advanced the innovation strategy; built partnerships both across the value chain and between sectors; and, through our communication efforts, improved the industry's understanding of the importance of research and innovation as the way to build and maintain competitive advantage and move the sector forward. The agri-food and agri-products sector continues to be one of the largest manufacturing sectors in the province and remains a cornerstone of Ontario's economic strength and success.

Together, with industry partners and the research community, we can drive targeted research and innovation that will benefit Ontario's economy, position us as a global leader in our sector, and bring high-quality safe agri-food and agri-products to the rest of the world.

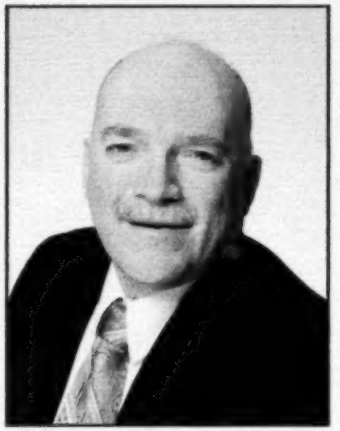
Sincerely,

Stewart Cressman

Stewart Cressman,
Chair, Agricultural Research Institute of Ontario

Chair and Director's Report

We are pleased to provide some highlights from the 2012-13 fiscal year for the Agricultural Research Institute of Ontario (ARIO) and agri-food and agri-products research and innovation in Ontario.



Stewart Cressman, Chair
Agricultural Research
Institute of Ontario

Innovation Strategy

ARIO's innovation strategy recommends an approach for modernizing Ontario's network of agri-food and agri-products research infrastructure. In 2012-13, ARIO continued to advance this strategy and achieved some significant milestones. Progress has been made and continues on the first two centres, the Vineland Research and Innovation Centre (Vineland) located at the Vineland research station, and the Livestock Research and Innovation Centre located at the Elora research station.

As the first centre to be developed under ARIO's innovation strategy, Vineland has continued to develop with steady progress for the year 2012-13. An important step for Vineland was the approval in principle by ARIO of the construction of a new pre-commercial scale research greenhouse at the Vineland research station. Total construction cost of this facility is budgeted at $8.9 million to be partially funded from industry stakeholders and partners. ARIO and Vineland will soon finalize a long-term site management agreement that will work in tandem with the recently completed operating agreement between Vineland and the University of Guelph (U of G). Together these two agreements provide the operating framework that sets out respective roles and responsibilities recognizing the important contributions of all parties located at the Vineland research station.

OMAF and MRA, the U of G and ARIO, working with leaders from the major livestock sectors (dairy, beef, swine and poultry) established a new industry led not-for-profit organization – the Livestock Research and Innovation Corporation (LRIC). It will coordinate input into research priority setting and programming, providing one voice for the livestock sector. Development of a joint multi-livestock stakeholder agreement that will guide the relationship of the parties going forward is nearing completion. Detailed design of the dairy research facility has been completed and construction is expected to begin in the fall of 2013.

In 2012-13 the ministry finalized their commitment of $20 million to the project. The Dairy Farmers of Ontario had previously committed to contributing up to $5 million (20% of total capital costs) bringing total project funding to $25 million.

In addition to the significant progress being made at Vineland (horticulture) and Elora (livestock), ARIO continues work on the innovation strategy recommendations by further developing concepts in the areas of Bioeconomy, Field Crops, and Food and Health. These concepts continue to be refined through ongoing engagement with stakeholders. ARIO continues to work on realizing operating efficiencies across ARIO's existing research infrastructure portfolio.

Minor Capital Program

The U of G continues to deliver ARIO's annual minor capital program. The program is funded through an annual transfer payment from OMAF and MRA and is supplemented by revenues generated by the ARIO. In addition, external stakeholders continue to contribute funding to several of the large renovation and capital projects and to some dedicated research field equipment purchases.

Karen Chan,
Director of Research
Agricultural Research
Institute of Ontario

In 2012-13, program focus was on completing a number of existing large renovation projects. In addition, safety, regulatory and equipment failure issues that affected building and program operations were addressed on a case by case basis as they arose throughout the year. A total of 119 projects valued at approximately $4.3 million were supported.

The minor capital program allocates funds across the ARIO portfolio (17 properties, 6,500 acres and over 300 buildings) for repairs, renovations and program-related improvements. The minor capital funding has enabled ARIO to make significant headway in addressing accumulated deferred maintenance and ongoing building and program maintenance and upgrades. Examples of projects include: greenhouse refurbishment; replacement of heating boilers with new high efficiency units; asbestos remediation and management; new equipment purchases, and the Reek Building reconstruction (office and classroom space at Ridgetown).

Research Programs

ARIO continues to effectively manage the ministry's open competitive research programs (currently New Directions and Food Safety) and provide input and advice into priorities and program administration of the ministry's research themes being delivered through the University of Guelph partnership. Selected highlights are included in the Highlight section of this annual report.

In our last report (2011-2012) we highlighted the progress made in the development of the on-line Research Management System (RMS). The RMS was launched in April 2011 with the call for Letters of Intent for the open Food Safety Research Program. The year 2012-2013 saw further development in the RMS. The system was utilized by our open research programs and was adopted by our most significant partner, the U of G. Process improvements now allow program administrators at OMAF and U of G and the research community, to effectively manage and track program submissions, awards and reports.

Response to using the RMS system has been positive and we are pleased to be able to offer this streamlined and efficient system to our research partners. Over the next year, focus will be on increasing the functionality and capacity of RMS to capture, access and retrieve more data. An enhanced ability to mine current and historical data over time will accelerate knowledge translation and transfer of critical research results, allowing for greater numbers of adaptation and commercialization opportunities.

We would like to thank all those who support agri-food research and innovation across the province - industry, academia and various levels of government. Together, we can, and are, making a difference. This past year saw the start of several key initiatives that will have a significant impact on agri-food research and innovation in Ontario and we look forward to continuing down this path in the year ahead.

Stewart Cressman

Stewart Cressman, Chair
Agricultural Research Institute of Ontario

Karen Chan

Karen Chan, Director of Research
Agricultural Research Institute of Ontario

Financial Information

Management's Responsibility for Financial Reporting

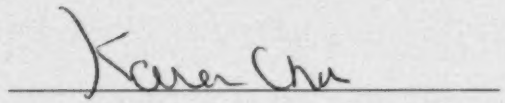
The accompanying financial statements of the Agricultural Research Institute of Ontario (ARIO) have been prepared in accordance with Canadian generally accepted accounting principles. Management is responsible for the accuracy, integrity, and objectivity of the information contained in the financial statements.

The preparation of financial statements necessarily involves the use of estimates based on management's best judgment, particularly when transactions affecting the current accounting period cannot be finalized with certainty until future periods. These financial statements have been prepared within reasonable limits of materiality with information available up to and including June 13, 2013.

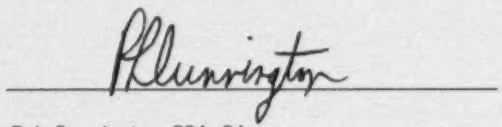
In discharging its responsibility for the integrity of the financial statements, management maintains financial and management control systems and practices designed to provide reasonable assurance that transactions are authorized, assets are safeguarded, and proper records are maintained.

The financial statements have been examined by RLB LLP, independent external auditors appointed by the Ontario Ministry of Agriculture and Food on behalf of ARIO. The external auditors' responsibility is to express an opinion on whether the financial statements are presented fairly in accordance with generally accepted accounting principles. The Auditors' Report outlines the scope of their examination and opinion.

On behalf of management:



Karen Chan
Director of Research



Rob Cunnington, CPA, CA
Comptroller

Independent Auditors' Report

Chartered Accountants
and Business Advisors

To the members of: Agricultural Research Institute of Ontario

We have audited the accompanying financial statements of Agricultural Research Institute of Ontario, which comprise the statement of financial position as at March 31, 2013 and the statements of revenues and expenditures and changes in fund balances, remeasurement losses and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audit is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, these financial statements present fairly, in all material respects, the financial position of Agricultural Research Institute of Ontario as at March 31, 2013 and the results of its operations and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Comparative Information

Without modifying our opinion, we draw attention to note 3 to the financial statements, which describes that Agricultural Research Institute of Ontario adopted Canadian public sector accounting standards on April 1, 2011. These standards were applied retroactively by management to the comparative information in these financial statements, including the statements of financial position as at March 31, 2012 and April 1, 2011, and the statements of revenues and expenditures and changes in fund balances, remeasurement losses and cash flows for the year ended March 31, 2012 and related disclosures. We were not engaged to report on the restated comparative information, and as such, it is unaudited.

RLB LLP

Guelph, Ontario
June 13, 2013

Chartered Accountants
Licensed Public Accountants

Financial Information

Statement of Financial Position

As at March 31, 2013

	2013 (schedule 1)	2012
ASSETS		
CURRENT		
Cash	$ 3,985,879	$ 2,985,161
Investments	12,327,500	7,507,811
Accounts receivable	172,045	158,133
	16,485,424	**10,651,105**
CAPITAL ASSETS UNDER CONSTRUCTION	24,790,842	8,490,842
CAPITAL ASSETS (note 7)	57,375,167	59,297,015
	$ 98,651,433	**$ 78,438,962**
LIABILITIES		
CURRENT		
Accounts payable and accruals	$ 1,520,026	$ 1,408,607
Holdbacks payable	417,773	371,442
Unclaimed expenditures	2,882,327	4,539,720
Deferred revenue	3,065	27,787
	4,823,191	**6,347,556**
DEFERRED CAPITAL FUNDED CONTRIBUTIONS (note 8)	37,063,396	18,435,508
DEFERRED CAPITAL CONTRIBUTIONS (note 9)	34,242,104	36,295,592
	76,128,691	**61,078,656**
NET ASSETS		
FUND BALANCES	8,542,270	3,319,226
ACCUMULATED REMEASUREMENT LOSSES	(56,811)	0
CONTRIBUTED ASSETS (note 6)	14,037,283	14,041,080
	22,522,742	**17,360,306**
	$ 98,651,433	**$ 78,438,962**

See notes to the financial statements

Statement of Revenues and Expenditures and Changes in Fund Balances

For the Year Ended March 31, 2013

		2013 (schedule 2)	2012
REVENUES			
Research:	Grants - Provincial (note 11)	$ 3,500,000	$ 1,850,000
	Grants - other	280,000	0
	Intellectual property	1,085,306	1,127,014
		4,865,306	**2,977,014**
Property:	Grants - provincial - minor capital (note 11)	3,218,581	2,336,708
	Rental income - provincial	865,909	673,326
	Rental income - private industry	661,289	674,957
	Transfer payments - payments in lieu of taxes	750,000	550,000
	Payments in lieu of taxes	252,175	119,975
	Amortization of deferred capital contribution	2,393,613	2,184,898
		8,141,567	**6,539,864**
Other:	Investment income	271,241	138,983
		13,278,114	**9,655,861**
EXPENDITURES			
Research:	Research project/program	1,948,406	1,961,654
	Intellectual property	731,496	661,501
		2,679,902	**2,623,155**
Property:	Payments in lieu of taxes	797,685	750,641
	Minor capital	3,058,824	2,859,945
	Operations and maintenance	772,330	807,916
	Amortization of capital assets	2,393,613	2,184,898
		7,022,452	**6,603,400**
Other:	Other expenses	10,110	2,617
		9,712,464	**9,229,172**
EXCESS OF REVENUE OVER EXPENDITURES for the year		**3,565,650**	**426,689**
NET AMOUNT TRANSFERRED FROM UNCLAIMED EXPENDITURES		**1,657,393**	**199,516**
		5,223,043	**626,205**
FUND BALANCES, beginning of year		**17,360,306**	**16,734,101**
ACCUMULATED REMEASUREMENT LOSSES		**(56,811)**	**0**
LAND TRANSFERRED TO TOWNSHIP OF ALFRED (note 6)		**(3,796)**	**0**
FUND BALANCES, end of year		**$ 22,522,742**	**$ 17,360,306**

See notes to the financial statements

Financial Information

Statement of Remeasurement Losses

for the Year Ended March 31, 2013

	2013	2012
ACCUMULATED REMEASUREMENT LOSSES, beginning of year	**$ 0**	**$ 0**
Adjustment upon adoption of financial instruments section (note 4)	0	0
Unrealized losses attributable to temporary investments	(56,811)	0
Amounts reclassified to the statement of operations:		
Disposition of long-term investments	0	0
Net remeasurement losses for the year	(56,811)	0
ACCUMULATED REMEASUREMENT LOSSES, end of year	**$ (56,811)**	**$ 0**

See notes to the financial statements

Statement of Cash Flows

for the Year Ended March 31, 2013

	2013	2012
CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES		
Excess of revenue over expenditures for the year	$ 3,565,650	$ 426,689
Items not requiring an outlay of cash		
Amortization	2,393,613	2,184,898
Deferred capital contributions	(2,053,488)	(2,053,955)
Accumulated remeasurement losses	(56,811)	0
	3,848,964	**557,632**
Changes in non cash working capital		
Accounts receivable	(13,912)	191,818
Investments	(4,819,689)	572,370
Accounts payable and accruals	111,419	(169,366)
Deferred capital funded contributions	18,627,888	10,679,576
Holdbacks payable	46,331	(165,977)
Deferred revenue	(24,722)	26,229
	17,776,279	**11,692,282**
CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES		
Additions to capital assets	(475,563)	(3,638,361)
Proceeds on transfer of land	2	0
Capital assets under construction	(16,300,000)	(6,349,183)
	(16,775,561)	**(9,987,544)**
NET INCREASE IN CASH for the year	**1,000,718**	**1,704,738**
CASH, beginning of year	2,985,161	1,280,423
CASH, end of year	**$ 3,985,879**	**$ 2,985,161**

See notes to the financial statements

Financial Information

Notes to the Financial Statements
For the Year Ended March 31, 2013

1. NATURE OF BUSINESS

The Agricultural Research Institute of Ontario (ARIO) is a non profit corporate body reporting directly to the Ministry of Agriculture and Food (OMAF), formerly the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA). ARIO is a non profit organization within the meaning of the Income Tax Act (Canada) and is exempt from income taxes. It was created by the ARIO Act (1962) with specific responsibilities over the co ordination and direction of agricultural research programs in Ontario. These programs relate to a broad range of commodities and disciplines, covering all aspects of the agri-food system.

Funding for programs supported by ARIO is available from various sources. The Ontario Government, through the Ministry of Agriculture and Food, is the primary source of funding. The Ontario Government also provides funding for the open research programs. Under the ARIO Act, the Institute may accept grants and donations for research. Other funds usually come from commercial sources (such as agri business, marketing boards, and producer associations) and can be either designated for specific projects or non designated. In addition, with the approval of the Minister of Agriculture and Food, ARIO is able to hold patents and earn royalties on research developments.

All receipts are held in trust by the Director of Research and are allocated in accordance with the terms of the funds.

The current research trust funds managed by the secretariat to ARIO are as follows:

- Agricultural Research Institute of Ontario (ARIO)
- Alternative Renewable Fuels (ARF)
- New Directions Research Program (New Directions)
- Food Safety Research Program (Food Safety)
- Infrastructure

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements have been prepared in accordance with Canadian public sector accounting standards for government not for profit organizations, including the 4200 series of standards, as issued by the Public Sector Accounting Board ("PSAB for Government NPOs") and include the following significant accounting policies:

(a) BASIS OF ACCOUNTING

Agricultural Research Institute of Ontario follows the deferral method of accounting for contributions. Restricted contributions are recognized as revenue of the appropriate research trust fund in the year in which the related expenses are incurred. Unrestricted contributions are recognized as revenue of the appropriate research trust fund when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

(b) FINANCIAL INSTRUMENTS

Measurement of financial instruments

The organization initially measures its financial assets and liabilities at fair value, except for certain non arm's length transactions.

The organization subsequently measures all its financial assets and financial liabilities at amortized cost, except for investments, which are measured at fair value. Changes in fair value are recognized in the statement of remeasurement losses.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

(b) FINANCIAL INSTRUMENTS (continued)

Financial assets measured at amortized cost include cash and accounts receivable.

Financial liabilities measured at amortized cost include accounts payable and accruals, holdbacks payable, unclaimed expenditures, deferred revenue, deferred capital funded contributions and deferred capital contributions.

The organization's financial assets measured at fair value include the investments.

Impairment

Financial assets measured at amortized cost are tested for impairment when there are indicators of impairment. If an impairment has occurred, the carrying amount of financial assets measured at amortized cost is reduced to the greater of the discounted future cash flows expected or the proceeds that could be realized from the sale of the financial asset. The amount of the write down is recognized in the statement of revenues and expenditures. The previously recognized impairment loss may be reversed to the extent of the improvement, directly or by adjusting the allowance account, provided it is no greater than the amount that would have been reported at the date of the reversal had the impairment not been recognized previously. The amount of the reversal is recognized in the statement of revenues and expenditures.

Transaction costs

The organization recognizes its transaction costs in expenditures in the period incurred. However, financial instruments that will not be subsequently measured at fair value are adjusted by the transaction costs that are directly attributable to their origination, issuance or assumption.

(c) UNCLAIMED EXPENDITURES

Unclaimed expenditures are defined as the total approved budget for open research projects less expenses incurred to date.

(d) CAPITAL ASSETS

Capital assets are recorded at cost and are amortized using the following annual rates and method:

Buildings and components	25 to 40 years straight line

(e) IMPAIRMENT OF LONG LIVED ASSETS

Long lived assets are tested for recoverability whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. An impairment loss is recognized when the carrying value exceeds the total undiscounted cash flows expected from their use and eventual disposition. The amount of the impairment loss is determined as the excess of the carrying value of the asset over its fair value.

(f) DEFERRED CAPITAL CONTRIBUTIONS

Deferred capital contributions are amortized at the same rate as the buildings to which they relate.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

(g) RESTRICTIONS ON THE EXPENDITURE OF FUNDS

The purpose, funding, terms and conditions and duration of each research trust fund are stipulated in the relevant Order-in-Council, memorandum of understanding or Ministry correspondence.

(h) USE OF ESTIMATES

The preparation of financial statements in accordance with PSAB for Government NPOs requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the year. Significant areas requiring the use of management estimates and assumptions relate to the valuation of accounts receivable and accruals, and the useful life of capital assets. Actual results could differ from those estimates.

3. FIRST TIME ADOPTION OF PUBLIC SECTOR ACCOUNTING STANDARDS

The Public Sector Accounting Board (PSAB) issued new standards for government (public sector) not for profit organizations. For years beginning on or after January 1, 2012, government NPOs have a choice of applying:

1. Public sector accounting standards including PS 4200 to 4270 for government not for profit organizations; or
2. Public sector accounting standards.

The Institute has chosen to follow Public Sector Accounting standards including PS 4200 to 4270 for government not-for-profit organizations.

Effective April 1, 2012, the Institute adopted the requirements of the new accounting framework, Canadian Public Sector Accounting Standards for Not-for-Profit Organizations (PSAB for Government NPOs). These are the Institute's first financial statements prepared in accordance with this framework and the transitional provisions of Section 2125, First-time Adoption by Government Organizations have been applied. Section 2125 requires retroactive application of the accounting standards with certain elective exemptions and mandatory exemptions.

The accounting policies set out in the Summary of Significant Accounting Policies have been applied in preparing the financial statements for the year ended March 31, 2013, the comparative information presented in these financial statements for the year ended March 31, 2012 and in the preparation of an opening statement of financial position at the date of transition of April 1, 2011, with the exception of PS 2601 - *Foreign Currency Translation* and PS 3450 - *Financial Instruments*, which have been applied with an effective date of April 1, 2012 (see note 4 Change in Accounting Policy).

The Institute issued financial statements for the year ended March 31, 2011 using generally accepted accounting principles prescribed by the CICA Handbook - Accounting Part V - Pre-changeover Accounting Standards. The adoption of PSAB for Government NPOs resulted in no adjustments to the previously reported assets, liabilities, net assets, excess of revenue over expenditures and cash flows for the Institute.

3. FIRST TIME ADOPTION OF PUBLIC SECTOR ACCOUNTING STANDARDS (continued)

The following table reflects the opening statement of financial position to PSAB for Government NPOs at the date of transition:

	Balance as at March 31, 2011 based on previous financial statements	Changes in fund balances	Balance as at April 1, 2011 based on PSAB for Government NPOs financial statements
ASSETS			
CURRENT			
Cash	$ 1,280,423	$ 0	$ 1,280,423
Investments	8,080,181	0	8,080,181
Accounts receivable	349,951	0	349,951
	9,710,555	**0**	**9,710,555**
CAPITAL ASSETS UNDER CONSTRUCTION	2,141,659	0	2,141,659
CAPITAL ASSETS	57,843,553	0	57,843,553
	$ 69,695,767	**$ 0**	**$ 69,695,767**
LIABILITIES			
CURRENT			
Accounts payable and accruals	$ 1,577,973	$ 0	$ 1,577,973
Holdbacks payable	537,419	0	537,419
Unclaimed expenditures	4,739,236	0	4,739,236
Deferred revenue	1,559	0	1,559
	6,856,187	**0**	**6,856,187**
DEFERRED CAPITAL FUNDED CONTRIBUTIONS	7,755,932	0	7,755,932
DEFERRED CAPITAL CONTRIBUTIONS	38,349,547	0	38,349,547
	52,961,666	**0**	**52,961,666**
NET ASSETS			
FUND BALANCES	16,734,101	0	16,734,101
	$ 69,695,767	**$ 0**	**$ 69,695,767**

4. CHANGE IN ACCOUNTING POLICY

On April 1, 2012, the Institute adopted Public Accounting Standards PS 3450 – *Financial Instruments*, PS 2601 – *Foreign Currency Translation* and PS 1201 – *Financial Statement Presentation*. The standards were adopted prospectively from the date of adoption. The new standards provide comprehensive requirements for the recognition, measurement, presentation and disclosure of financial instruments and foreign currency transactions.

Under PS 3450, all financial instruments, including derivatives, are included on the statement of financial position and are measured either at fair value or amortized cost based on the characteristics of the instrument and the Institute's accounting policy choices (see note 2 - Summary of Significant Accounting Policies).

There were no adjustments when adopting the new standards.

5. FINANCIAL INSTRUMENTS

(a) Fair value

For certain of the Institute's financial instruments, the carrying amounts of cash, accounts receivable and accounts payable and accruals, approximate fair value due to the short term maturity of these financial instruments.

PS3450, Financial Instruments - Disclosures requires disclosures about the inputs to fair value measurements, including their classification within a hierarchy that prioritizes the inputs to fair value measurement. The three levels of the fair value hierarchy are:

Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities.
Level 2 Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly; and
Level 3 Inputs that are not based on observable market data.

The Institute's financial instruments are all classified as Level 1 as at March 31, 2013 and 2012, and April 1, 2011.

There were no transfers in or out of Level 1 for the years ended March 31, 2013 and 2012.

(b) Associated risks

(i) Market price risk

Market price risk is the risk that the value of an instrument will fluctuate as a result of changes in market prices, whether caused by factors specific to an individual investment, its issuer or all factors affecting all instruments traded in the market. As all of the Institute's financial instruments are carried at fair value with fair value changes recognized in the statement of remeasurement losses, all changes in market conditions will directly affect the increase (decrease) in accumulated remeasurement losses. Market price risk is managed by the Investment Manager through construction of a diversified portfolio of instruments traded on various markets and across various industries.

5. FINANCIAL INSTRUMENTS (continued)

(b) Associated risks (continued)

(i) Market price risk (continued)

A 1% increase (decrease) in the value of the investments would increase (decrease) the asset value and the change in unrealized gains in investments by $123,275 (2012 - $75,078). The price of the investments is affected by changes in market values, foreign exchange rates and interest rates impacting the underlying financial instruments held within the individual investments managed by the Investment Manager.

(ii) Interest rate risk

Interest rate risk refers to the adverse consequences of interest rate changes on the Institute's cash flows, financial position and income. Interest rate changes have an indirect impact on the investment assets in the Institute. The Institute uses investment diversification to manage this risk.

(iii) Liquidity risk

Liquidity risk is the risk that an entity will encounter difficulty in meeting obligations associated with financial liabilities.

All of the Institute's fixed income securities are considered to be readily realizable as they can be quickly liquidated at amounts close to their fair value in order to meet liquidity requirements.

(iv) Foreign currency risk

Foreign currency risk is the risk that fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Institute is not exposed to significant foreign currency risk.

(v) Credit risk

Credit risk is the risk that a customer or counterpart may be unable or unwilling to meet a commitment that it has entered into with ARIO. The Institute is not exposed to significant credit risk.

6. CONTRIBUTED ASSETS

Contributed assets of $14,037,283 (2012 - $14,041,080) are recorded in the Infrastructure Fund and represent the cost of the land transferred to ARIO from the Government of Ontario.

During the year, 0.61 acres of land was transferred to the municipality of Alfred for $2 and a loss on transfer/disposal of $3,796, which is less than the estimated fair market value of $73,600, was recognized.

7. CAPITAL ASSETS

	Cost	Accumulated Amortization	Net 2013	Net 2012
LAND:				
Simcoe Railway Line	$ 9,793	$ 0	$ 9,793	$ 9,793
Regional Campuses	3,092,104	0	3,092,104	3,095,900
Research Stations	10,967,029	0	10,967,029	10,945,180
	14,068,926	0	14,068,926	14,050,873
BUILDINGS:				
Regional campuses	34,500,493	7,797,244	26,703,249	28,127,870
Research Stations	22,037,912	5,434,920	16,602,992	17,118,272
	56,538,405	13,232,164	43,306,241	45,246,142
	$ 70,607,331	**$ 13,232,164**	**$ 57,375,167**	**$ 59,297,015**

As at March 6, 2007, the titles for capital assets (land and buildings) with a carrying value of approximately $60.9 million were transferred to ARIO from the Government of Ontario. Carrying value is being used as the transfer value since the transfer took place between non-arm's length parties, is non-monetary in nature and does not have commercial substance. As an agency of the Government of Ontario, ARIO reports these capital assets (and other assets and liabilities) in consolidation with the Ministry of Agriculture and Food on an annual basis.

During the year, capital additions with a carrying value of $72,294 (2012 - $1,400,000) were contributed to the organization by lessees who have long term leases with the organization. Carrying value is determined as the cost of the contributed assets to the contributors which approximates fair value due to the relatively short period between the date of purchase by the contributor and the asset being contributed to the organization.

8. DEFERRED CAPITAL FUNDED CONTRIBUTIONS

Deferred capital contributions relating to construction of capital funded projects represents the amount of grants and other restricted funding received by the Institute for construction projects.

	2013	2012
Balance, beginning of the year	$ 18,435,508	$ 7,755,932
Less amortization for the year	(340,125)	(130,943)
Add contributions received for capital purposes	18,968,013	10,810,519
Balance, end of the year	$ 37,063,396	$ 18,435,508

8. DEFERRED CAPITAL FUNDED CONTRIBUTIONS (continued)

The funding sources are as follows:

	2013	2012
Federal	$ 1,347,500	$ 1,382,500
Provincial	32,335,236	13,684,424
Industry	3,380,660	3,368,584
	$ 37,063,396	$ 18,435,508

9. DEFERRED CAPITAL CONTRIBUTIONS

Deferred capital contributions represent the unamortized amount of the net book value of the buildings transferred to ARIO from the Government of Ontario in 2007. The amortization of capital contributions is recorded as revenue in the statement of revenues and expenditures. The changes in the deferred capital contributions are as follows:

	2013	2012
Balance, beginning of the year	$ 36,295,592	$ 38,349,547
Less amortization for the year	(2,053,488)	(2,053,955)
Balance, end of the year	$ 34,242,104	$ 36,295,592

10. ARIO RESEARCH FUND

	Seed Royalty	Technology Royalty	Unpledged Equity	Total 2013	Total 2012
Revenue					
Intellectual property	$ 929,967	$ 155,339	$ 0	$ 1,085,306	$ 1,127,014
Investment income	51,720	64,049	360	116,129	58,398
	981,687	219,388	360	1,201,435	1,185,412
Expenses	723,281	17,929	396	741,606	664,118
Net surplus (deficit) for the year	258,406	201,459	(36)	459,829	521,294
Fund balance, beginning of the year	1,402,066	1,798,749	36	3,200,851	2,679,557
Remeasurement losses	(6,980)	(8,409)	0	(15,389)	0
Fund balance, end of year	$ 1,653,492	$ 1,991,799	$ 0	$ 3,645,291	$ 3,200,851

11. GRANTS RECEIVED FROM THE PROVINCIAL GOVERNMENT

The following grants have been received from the Ontario Ministry of Agriculture, Food and Rural Affairs and successor ministries:

	2013	2012
New Directions Research Program	$ 3,000,000	$ 1,350,000
Food Safety Research Program	500,000	500,000
	3,500,000	1,850,000
Minor capital	4,500,000	4,750,000
Elora Livestock Environmental and Energy Complex	16,214,300	6,000,000
Payments in lieu of taxes	750,000	550,000
	$ 24,964,300	**$ 13,150,000**

The following Provincial Government capital transfer payment grants have been partially capitalized as Deferred Capital Funded Contributions and partially recognized as Revenues as follows:

	2013	2012
Minor Capital:		
Funding received	$ 4,500,000	$ 4,750,000
Capitalized - Deferred Capital Funding Contribution	(1,281,419)	(2,413,292)
Net revenue	$ 3,218,581	$ 2,336,708
Elora Livestock Environmental and Energy Complex:		
Funding received	$ 16,214,300	$ 6,000,000
Capitalized - Deferred Capital Funding Contribution	(16,214,300)	(6,000,000)
Net revenue	$ 0	$ 0

12. CORRESPONDING FIGURES

Prior year's figures have been reclassified to conform to the current year's presentation.

13. FUNDING AGREEMENTS WITH THIRD PARTIES

(a) The Agricultural Research Institute of Ontario (ARIO), Her Majesty the Queen in right of Ontario as represented by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and the Integrated Grain Processors Co-operative Inc. (IGPC) have jointly signed an agreement whereby, pursuant to a Capital Grant Agreement effective June 2006 between OMAFRA and IGPC, whereby IGPC agreed to contribute to a research and development fund in exchange for the capital grant support provided by OMAFRA through the Ontario Ethanol Growth Fund. IGPC has agreed to contribute $280,000 annually for 10 years (for a total of $2,800,000) starting in April 2012 and ending with the final payment in April 2021. These funds are being paid directly to ARIO to be used to support research priorities in the agri food sector in Ontario.

(b) Her Majesty the Queen in right of Ontario as represented by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) and Kawartha Ethanol Inc. have signed a Capital Grant Agreement effective August 1, 2008 between OMAFRA and Kawartha Ethanol Inc. whereby Kawartha Ethanol Inc. agreed to contribute to a research and development fund in exchange for the capital grant support provided by OMAFRA through the Ontario Ethanol Growth Fund. Kawartha Ethanol Inc. has agreed to contribute $98,000 annually for 10 years (for a total of $980,000) starting April 2013 and ending with the final payment in April 2022. These funds are to be paid directly to ARIO to be used to support research priorities in the agri food sector in Ontario.

Financial Information

Research Trust Funds

Schedule 1 - Financial Position

As at March 31, 2013

	ARIO	Infrastructure	ARF	New Directions	Food Safety	Eliminations	March 31, 2013 Total (page 10)
ASSETS	$	$	$	$	$	$	$
CURRENT ASSETS							
Cash	3,985,879						3,985,879
Investments	12,327,500						12,327,500
Due from ARIO		6,614,636		4,209,679	1,028,604	**(11,852,919)**	0
Accounts receivable	101,359	62,728		6,395	1,563		172,045
	16,414,738	**6,677,364**	**0**	**4,216,074**	**1,030,167**	(11,852,919)	**16,485,424**
CAPITAL ASSETS UNDER CONSTRUCTION (note 7)		24,790,842					24,790,842
CAPITAL ASSETS (note 7)	9,793	57,365,374					57,375,167
	16,424,531	**88,833,580**	**0**	**4,216,074**	**1,030,167**	**(11,852,919)**	**98,651,433**
LIABILITIES							
CURRENT LIABILITIES							
Due to other research trust funds	11,852,919					(11,852,919)	0
Accounts payable and accruals	926,321	93,702		408,910	91,093		1,520,026
Holdbacks payable				333,690	84,083		417,773
Unclaimed expenditures				2,502,088	380,239		2,882,327
Deferred revenue		3,065					3,065
	12,779,240	**96,767**	**0**	**3,244,688**	**555,415**	**(11,852,919)**	**4,823,191**
DEFERRED CAPITAL FUNDED CONTRIBUTIONS (note 8)		37,063,396					37,063,396
DEFERRED CAPITAL CONTRIBUTIONS (note 9)		34,242,104					34,242,104
	12,779,240	**71,402,267**	**0**	**3,244,688**	**555,415**	**(11,852,919)**	**76,128,691**
FUND BALANCES	3,660,680	3,417,146	0	986,097	478,347		8,542,270
ACCUMULATED REMEASUREMENT LOSSES	(15,389)	(23,116)		(14,711)	(3,595)		(56,811)
CONTRIBUTED ASSETS (note 6)		14,037,283					14,037,283
	3,645,291	**17,431,313**	**0**	**971,386**	**474,752**	**0**	**22,522,742**
	16,424,531	**88,833,580**	**0**	**4,216,074**	**1,030,167**	**(11,852,919)**	**98,651,433**

See notes to the financial statements

Research Trust Funds
Schedule 2 - Revenues and Expenditures

Revenues

For the Year Ended
March 31, 2013

		ARIO (note 10)	Infrastructure	ARF	New Directions	Food Safety	March 31, 2013 Total (page 11)
		$	$	$	$	$	$
REVENUE							
Research:	Grants - provincial (note 11)				3,000,000	500,000	3,500,000
	Grants - other				280,000		280,000
	Intellectual property	1,085,306					1,085,306
		1,085,306	0	0	3,280,000	500,000	4,865,306
Property:	Grants - provincial - minor capital (note 11)		3,218,581				3,218,581
	Rental income - provincial		865,909				865,909
	Rental income - private industry		661,289				661,289
	Transfer payments - payments in lieu of taxes		750,000				750,000
	Payments in lieu of taxes		252,175				252,175
	Amortization of deferred capital contribution		2,393,613				2,393,613
		0	8,141,567	0	0	0	8,141,567
Other:	Investment income	116,129	84,729		55,126	15,257	271,241
	TOTAL REVENUE	**1,201,435**	**8,226,296**	**0**	**3,335,126**	**515,257**	**13,278,114**

See notes to the financial statements

Financial Information

Research Trust Funds

Schedule 2 - Revenues and Expenditures (continued)

Expenditures

For the Year Ended
March 31, 2013

	ARIO (note 10)	Infrastructure	ARF	New Directions	Food Safety	March 31, 2013 Total (page 11)
	$	$	$	$	$	$
EXPENDITURES						
Research: Research project\program			40,000	1,488,238	420,168	1,948,406
Intellectual property	731,496					731,496
	731,496	0	40,000	1,488,238	420,168	2,679,902
Property: Payments in lieu of taxes		797,685				797,685
Minor capital		3,058,824				3,058,824
Operations and maintenance		772,330				772,330
Amortization of capital assets		2,393,613				2,393,613
	0	7,022,452	0	0	0	7,022,452
Other: Other expenses	10,110					10,110
TOTAL EXPENDITURES	**741,606**	**7,022,452**	**40,000**	**1,488,238**	**420,168**	**9,712,464**
EXCESS (SHORTFALL) OF REVENUE OVER EXPENDITURES	**459,829**	**1,203,844**	**(40,000)**	**1,846,888**	**95,089**	**3,565,650**
NET AMOUNT TRANSFERRED FROM UNCLAIMED EXPENDITURES			40,000	1,191,194	426,199	1,657,393
	459,829	**1,203,844**	**0**	**3,038,082**	**521,288**	**5,223,043**
FUND BALANCES, beginning of year	**3,200,851**	**16,254,381**		**(2,051,985)**	**(42,941)**	**17,360,306**
ACCUMULATED REMEASUREMENT LOSSES	(15,389)	(23,116)		(14,711)	(3,595)	(56,811)
LAND TRANSFERRED TO TOWNSHIP OF ALFRED (note 6)		(3,796)				(3,796)
FUND BALANCES, end of year	**3,645,291**	**17,431,313**	**0**	**971,386**	**474,752**	**22,522,742**

See notes to the financial statements

ARIO Highlights for 2012-2013

General

Business Plan

The annual multi-year business plan was updated for 2012-2015 and serves as a framework to guide ARIO's activities over the next three years. The four key areas of focus for ARIO continue to be:

- **Strategic Advice** - Providing strategic advice to the Minister on agri-food and agri-products research and innovation.
- **Leadership** - Leading the Innovation Strategy to modernize the province's agri-food and agri-products research and innovation physical and virtual infrastructure.
- **Advocacy** - Promoting the Ontario agri-food and agri-products research and innovation system.
- **Managerial Oversight** – Providing managerial and administrative oversight of open competitive research programs (New Directions and Food Safety) and the portfolio of properties (14 research stations and 3 regional campuses) comprised of over 6,500 acres and 300+ buildings with an asset book value of approximately $82M with over 45 tenants that include government, not for profits, industry and private.

Innovation Strategy

- ARIO's Innovation Strategy recommends an approach for modernizing Ontario's network of agri-food and agri-products research. At present, there are five (5) modern physical and virtual innovation centres proposed under the Innovation Strategy, and recommended to the Minister. They include Vineland (horticulture) and Elora (livestock) already underway, as well as bio-economy, field crops and food and health where work with stakeholders to further develop the concepts continues.
- Recommendations have also been developed with respect to realizing operating efficiencies across ARIO's existing research infrastructure portfolio.

Vineland Research and Innovation Centre (Vineland)

- As the first centre to be developed under ARIO's Innovation Strategy, Vineland has shown steady progress during the past year. An important step was the approval in principle by ARIO of the construction of a new pre-commercial scale research greenhouse at the Vineland Research Station. Total construction cost of this facility is budgeted at $8.9 million to be partially funded from industry stakeholders and partners with construction expected to begin in the fall 2013.
- ARIO and Vineland will soon finalize a long-term site management agreement that will work in tandem with the recently completed operating agreement between Vineland and the University of Guelph (UofG). Together these two agreements provide the operating framework that sets out respective roles and responsibilities recognizing the important contributions of all parties located at the Vineland Research Station.
- Vineland continued its role in coordinating priority setting for the horticulture sector. They engaged in several research priority setting exercises including for the edible and non-edible horticulture sectors. Vineland provided its *2013 Ontario Horticulture Research Priority Report* to OMAF and MRA, which provided very valuable input into research priority setting under the Ontario Research Advisory Network (ORAN) in 2013. Other Vineland priority setting initiatives/reports include floriculture and nursery landscape.

Livestock Research and Innovation Centre - Elora

- Industry leaders representing the livestock sector have been active partners in the development of a new organization, the Livestock Research and Innovation Corporation (LRIC). Together with OMAF, ARIO and the UofG, all involved have been working to develop a joint multi livestock stakeholder agreement that will oversee overall governance of livestock research in the province resulting in a stronger focus on collaboration and true partnership between industry, academia and government leading to new partnerships, funding and governance models.
- In 2012-13 the Ministry finalized their commitment of $20 million to the project. The Dairy Farmers of Ontario had previously committed to contributing up to $5 million (20% of total capital costs) bringing total project funding to $25 million.
- Detailed design is currently being finalized and project tendering is underway with official ground breaking for Phase 1, the Dairy Research Facility, expected to occur in late summer or early fall 2013.

Guelph Research Station

- Progress continues to be made on the possible relocation of the Guelph Research Station facilities and programs. OMAF and MRA's Research and Innovation Branch (RIB) are working closely with stakeholders from the Guelph Turfgrass Institute (GTI), the University of Guelph (U of G), the Ministry of Infrastructure (MOI) and its agency Infrastructure Ontario (IO). There is significant interest by the UofG and GTI to relocate elements of the GTI to the UofG's Arboretum as part of a consolidation and redevelopment of that site.
- A consultant was engaged to develop a preliminary relocation plan and cost analysis with the following components:
    - New consolidated infrastructure development on Arboretum lands (new GTI Centre, some dedicated turfgrass plots and nursery space and renewed operational infrastructure).
    - Relocation of other elements to the Elora Research Station (including purchase of additional land to accommodate expanded research activities).
    - Potential partnering with local municipalities for sports turf fields (using community soccer fields as a living laboratory).

Minor Capital Program

- The UofG continues to deliver ARIO's annual minor capital program. The program is funded through an annual transfer payment from OMAF and is supplemented by revenues generated by the ARIO. In addition, external stakeholders continue to contribute funding to several of the large renovation and capital projects and to some dedicated research field equipment purchases.
- The minor capital program has permitted ARIO to make significant progress in reducing the deferred maintenance issues accumulated prior to ARIO taking ownership responsibility in 2007. Projects continue to be evaluated and ranked against the following prioritized criteria:
    - animal care
    - human health and safety
    - code compliance
    - building integrity
    - life cycle replacement
    - efficiency / conservation (utilities, labour, resources)
    - program capacity
- In 2012-13, program focus was on completing a number of existing large renovation projects. In addition, safety, regulatory and equipment failure issues that affected building and program operations were addressed on a case by case basis as they arose throughout the year. A total of 119 projects valued at approximately $4.3 million were supported.
- The minor capital program provides funding to address priorities across the ARIO portfolio (17 properties, 6,500 acres and over 300 buildings) for repairs, renovations and program-related improvements. Examples of projects this past year include: greenhouse refurbishment; replacement of heating boilers with new high efficiency units; asbestos remediation and management; new equipment purchases, and the Reek Building reconstruction (office and classroom space at Ridgetown).

Research Programs

Improvements in the Research Management System (RMS)

- Development continued with the on-line Research Management System (RMS) that was launched in 2011. All workflows related to research program administration are now implemented in the RMS. The system has dramatically improved processes for both program administrators at OMAF and the UofG as well as the research community, who can effectively manage and track program submissions, awards and reports. This next year will focus on enhancements to the system that will improve the capacity to access and retrieve current and historical data from the system.

Open Competitive Research Programs (Food Safety, New Directions)

The **Food Safety Research Program** supports a science-based food safety system within Ontario. Program priorities support research areas within the Emergency Management research theme. Seven projects were approved for funding this year relating to economic analysis, prevention and control of disease, detection methodology, and threat identification and prioritization.

Project highlights include:

- **Development of a framework to prioritize food safety hazards in Canada** – The project endeavours to integrate public health, economic, public risk perception and social factors in a framework for strategic management of food safety hazards. *Research Priority: Economic Analysis*

- **Understanding the distribution of Ochratoxin A contamination in grain** – This research will address the need for more reliable and cost effective detection methods for Ochratoxin, which will assist in more effective testing of stored grains in light of new limits for this mycotoxin established by Health Canada. *Research Priority: Detection and Surveillance*

- **Waterfowl as a vector for foodborne contaminants** - This work will provide evidence-based information to producers and other food safety stakeholders regarding the potential role of wildlife on the transmission of foodborne pathogens among farms and regions, and will inform biosecurity programs. *Research Priority: Detection and Surveillance*

The **New Directions Research Program** provides targeted research funding for key ministry priority areas and emerging issues in support of a profitable and sustainable agri-food and agri- products sector and strong rural communities.

Projects were funded in four priority areas. Highlights include:

- **Water Management** – Research is being funded that supports Great Lakes water quality and COA (Canada-Ontario Agreement) objectives. New knowledge, technologies and best management practices will be developed relating to water conservation, efficiency, quality and reuse in agriculture (e.g. greenhouse, horticulture and livestock production).

- **Bioeconomy** – Research objectives include the development of integrated biorefining processes to convert agricultural biomass to biomaterials, agronomic evaluation of new industrial crops, and using bacterial genomics to produce high value bioplastics.

- **Local Food** – Research focuses on strengthening local food systems. Projects include exploring regional distribution systems, mobile food processing facilities and the potential for growing food on unused public land to improve food security.

- **Rural Policy** – Research includes enhancing rural communities by supporting entrepreneurship and innovation in rural Ontario, social enterprise development and building leadership capability in the food value chain.